



08901572 • 031103

#14

010898
SEQUENCE LISTING

<110> Nippon Zeon Co., Ltd.,
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<213> Mycoplasma gallisepticum
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<223> TTM-1 gene
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<213> Mycoplasma gallisepticum

<220>

<223> mgc3 gene

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<211> 456

<212> PRT

<213> Mycoplasma gallisepticum

<220>

<223> TTM-1 portion of pNZ40K-S

<400> 3

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Val	Val	Ser	Ser	Val	Gln	Leu	Ser	Glu	Glu	Glu	Ser	Thr	Phe	Tyr	Leu
35	40	45													
Cys	Pro	Pro	Pro	Val	Gly	Ser	Thr	Val	Ile	Arg	Leu	Glu	Phe	Gly	Cys
50	55	60													
Met	Ser	Ile	Thr	Lys	Lys	Asp	Ala	Asn	Pro	Asn	Asn	Gly	Gln	Thr	Gln
65	70	75	80												
Leu	Glu	Ala	Ala	Arg	Met	Glu	Leu	Thr	Asp	Leu	Ile	Asn	Ala	Lys	Ala
85	90	95													
Met	Thr	Leu	Ala	Ser	Leu	Gln	Asp	Tyr	Ala	Lys	Ile	Glu	Ala	Ser	Leu
100	105	110													
Ser	Ser	Ala	Tyr	Ser	Glu	Ala	Glu	Thr	Val	Asn	Asn	Asn	Leu	Asn	Ala
115	120	125													
Thr	Leu	Glu	Gln	Leu	Lys	Met	Ala	Lys	Thr	Asn	Leu	Glu	Ser	Ala	Ile
130	135	140													
Asn	Gln	Ala	Asn	Thr	Asp	Lys	Thr	Thr	Phe	Asp	Asn	Glu	His	Pro	Asn
145	150	155	160												
Leu	Val	Glu	Ala	Tyr	Lys	Ala	Leu	Lys	Thr	Thr	Leu	Glu	Gln	Arg	Ala
165	170	175													
Thr	Asn	Leu	Glu	Gly	Leu	Ser	Ser	Thr	Ala	Tyr	Asn	Gln	Ile	Arg	Asn
180	185	190													
Asn	Leu	Val	Asp	Leu	Tyr	Asn	Lys	Ala	Ser	Ser	Leu	Ile	Thr	Lys	Thr
195	200	205													
Leu	Asp	Pro	Leu	Asn	Gly	Gly	Thr	Leu	Leu	Asp	Ser	Asn	Glu	Ile	Thr
210	215	220													
Thr	Val	Asn	Arg	Asn	Ile	Asn	Asn	Thr	Leu	Ser	Thr	Ile	Asn	Glu	Gln
225	230	235	240												
Lys	Thr	Asn	Ala	Asp	Ala	Leu	Ser	Asn	Ser	Phe	Ile	Lys	Lys	Val	Ile
245	250	255													
Gln	Asn	Asn	Glu	Gln	Ser	Phe	Val	Gly	Thr	Phe	Thr	Asn	Ala	Asn	Val
260	265	270													
Gln	Pro	Ser	Asn	Tyr	Ser	Phe	Val	Ala	Phe	Ser	Ala	Asp	Val	Thr	Pro
275	280	285													
Val	Asn	Tyr	Lys	Tyr	Ala	Arg	Arg	Thr	Val	Trp	Asn	Gly	Asp	Glu	Pro
290	295	300													
Ser	Ser	Arg	Ile	Leu	Ala	Asn	Thr	Asn	Ser	Ile	Thr	Asp	Val	Ser	Trp
305	310	315	320												
Ile	Tyr	Ser	Leu	Ala	Gly	Thr	Asn	Thr	Lys	Tyr	Gln	Phe	Ser	Phe	Ser
325	330	335													
Asn	Tyr	Gly	Pro	Ser	Thr	Gly	Tyr	Leu	Tyr	Phe	Pro	Tyr	Lys	Leu	Val
340	345	350													
Lys	Ala	Ala	Asp	Ala	Asn	Asn	Val	Gly	Leu	Gln	Tyr	Lys	Leu	Asn	Asn
355	360	365													
Gly	Asn	Val	Gln	Gln	Val	Glu	Phe	Ala	Thr	Ser	Thr	Ser	Ala	Asn	Asn
370	375	380													
Thr	Thr	Ala	Asn	Pro	Thr	Pro	Ala	Val	Asp	Glu	Ile	Lys	Val	Ala	Lys
385	390	395	400												
Ile	Val	Leu	Ser	Gly	Leu	Arg	Phe	Gly	Gln	Asn	Thr	Ile	Glu	Leu	Ser
405	410	415													
Val	Pro	Thr	Gly	Glu	Gly	Asn	Met	Asn	Lys	Val	Ala	Pro	Met	Ile	Gly
420	425	430													
Asn	Ile	Tyr	Leu	Ser	Ser	Asn	Glu	Asn	Asn	Ala	Asp	Lys	Ile	Pro	Gly
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Tyr	Arg	Arg	Pro	Gly	Thr	Phe	Leu								
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<211> 1224

<212> PRT

<213> Mycoplasma gallisepticum

<220>

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<223> MGC3 encoded by mgc3 gene

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 35 40 45
 Asp Ala Asn Ser Val Arg Leu Ala Gly Leu Gly Gln Asn Gly Ser Leu
 50 55 60
 Phe Asn Thr Val Leu Arg Asp Val Asp Asn Phe Ile Thr Ala Ala
 65 70 75 80
 Asn Gly Thr Ile Ile Lys Leu Asp Ser Phe Thr Lys Pro Leu Tyr Gly
 85 90 95
 Leu Asp Leu Ser Asp Asp Cys Gly Gly Tyr Lys Val Lys Gln Ile Val
 100 105 110
 Ser Asp Tyr Thr Thr Ser Arg Asn Arg Phe Asp Gln Arg Gln Thr Arg
 115 120 125
 Ala Tyr Tyr Ala Leu Leu Val Asn Asp Glu Ala Asn Val His Leu Lys
 130 135 140
 Arg Ile Asn Thr Asn Ser Asn Arg Ile Gly Asn Arg Asn Asn Asn Ser
 145 150 155 160
 Lys Phe Val Ile Gly Gly Val Asp Asn Pro Ala His Val Ile Arg Phe
 165 170 175
 Thr Asp Asp Gly Thr Lys Phe Asn Phe Thr Asn Gln Thr Gln Gly Glu
 180 185 190
 Ile Val Asn Asp Phe Ile Leu Asp Ala Pro Ile Leu Pro Lys Asp Leu
 195 200 205
 His Pro Asp Trp Tyr Asn Leu Tyr Ile Gln Arg Lys Ile Leu Pro Asn
 210 215 220
 Asp Val Asn Thr Ala Val Val Pro Trp Pro Val Gly Arg Val Ser Gly
 225 230 235 240
 Thr Asn Ala Asp Asp Gly Met Phe Asp Cys Gly Asn Gln Ile Thr
 245 250 255
 Asn Thr Asp Pro Ile Ala Gln Thr Lys Thr Thr Asp Asn Gln Asn
 260 265 270
 Pro Ser Thr Phe Asn Ser Gly Ala Met Pro Gly Ala Asn Asn Arg Tyr
 275 280 285
 Asp Ser Gln Leu Asn Val Lys His Arg Ile Lys Thr Ser Phe Gln Leu
 290 295 300
 Asp Glu Arg Ile Asn Thr Asn Ser Asn Arg Ile Gly Asn Arg Asn Asn
 305 310 315 320
 Asn Ser Lys Phe Val Ile Gly Gly Val Asp Asn Pro Ala His Val Ile
 325 330 335
 Arg Phe Thr Asp Asp Gly Thr Lys Phe Asn Phe Thr Asn Gln Thr Gln
 340 345 350
 Gly Glu Ile Val Asn Asp Phe Ile Leu Asp Ala Pro Ile Leu Pro Lys
 355 360 365
 Asp Leu His Pro Asp Trp Tyr Asn Leu Tyr Ile Gln Arg Lys Ile Leu
 370 375 380
 Pro Asn Asp Val Asn Thr Ala Val Val Pro Trp Pro Val Gly Arg Val
 385 390 395 400
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 405 410 415
 Ile Thr Asn Thr Asp Pro Ile Ala Gln Thr Lys Thr Thr Asp Asn
 420 425 430
 Gln Asn Pro Ser Thr Phe Asn Ser Gly Ala Met Pro Gly Ala Asn Asn
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 Arg Tyr Asp Ser Gln Leu Asn Val Lys His Arg Ile Lys Thr Ser Phe
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Gln Leu Asp Glu Lys Phe Val Tyr Pro Glu Trp Thr Gly Ser Glu Glu
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 565 570 575
 Asp Asn Gly Thr Thr Asn Gly Thr Thr Thr Ala Asp Thr Ser
 580 585 590
 Ser Gly Ser Thr Gly Ala Gly Thr Gly Asn Thr Asn Thr Ser Gln
 595 600 605
 Thr Val Ser Asn Pro Thr Leu Asn Thr Tyr Arg Ser Phe Gly Ile Asp
 610 615 620
 Ser Lys Pro Thr Ser Ala Asn Lys Ile Asp Glu Thr Asn Trp Ala Asp
 625 630 635 640
 Pro Asn Val Ile Glu Ala Arg Ile Tyr Ala Glu Tyr Arg Leu Gly Ile
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 675 680 685
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 770 775 780
 Glu Ser Arg Ser Ile Phe Gln Ser Gly Tyr Ser Asp Asn Thr Tyr Glu
 785 790 795 800
 Tyr Ile Gln Ser Val Leu Gly Phe Asp Gly Ile Arg Asn Asn Leu Asn
 805 810 815
 Val Gly Val Lys Ala Ser Ser Phe Leu Asn Ser Asn Arg Pro Asn Pro
 820 825 830
 Asn Gly Leu Glu Met Ile Ala Ala Thr Thr Tyr Leu Arg Ser Gln Ile
 835 840 845
 Gly Leu Ala Arg Thr Ser Gly Leu Pro Asn Gln Gln Pro Phe Gly Thr
 850 855 860
 Thr His Gln Val Ile Ser Val Ser Pro Gly Asp Gln Phe Ser Ser Ile
 865 870 875 880
 Lys Asn Ile Arg Thr Ile Phe Pro Gly Asn Gln Leu Trp Tyr Phe Leu
 885 890 895
 Phe Thr Asn Glu Asn Asn Lys Ser Ser Val Tyr Thr Leu Arg Leu Ala
 900 905 910
 Asp Ser Ser Asn Pro Asp Ala Ser Ser Ser Phe Ser Pro Thr Ser Leu
 915 920 925
 Ile Asp Val Asn Glu Ile Gly Val Ile Leu Pro Leu Leu Asp Asn Ser
 930 935 940
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 945 950 955 960
 Pro Gly Ser Pro Gly Ser Tyr Thr Ala Val Asn Thr Phe Asn Gln Asn

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Phe Trp Gly Thr Ile Gln Phe Lys Pro Asp Glu Tyr	Leu Ile Gln Asn		
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Gly Phe Thr Ser Gln Val Ala Arg Asn Phe Val Thr Asn Gln Ser Phe			
1010	1015	1020	
Leu Asn Ser Leu Val Asp Phe Thr Pro Ala Asn Ala	Gly Thr Asn Tyr		
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Arg Val Val Val Asp Pro Asp Gly Asn Leu Thr Asn Gln Asn Leu Pro			
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1090	1095	1100	
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Ala Gln Arg Lys Leu Gln Asp Lys Gly Phe Lys Thr Thr Phe Lys Lys			
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Thr Gln Thr Ala Asn Val Lys Lys Lys Pro Ala Ala Leu Gly Ala Gly			
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Lys Ser Gly Asp Lys Lys Pro Ala Ala Ala Lys Pro Ala Ala Pro			
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Ala Lys Pro Ser Ala Pro Lys Ala Ser Ser Pro Ala Lys Pro Thr Gly			
1185	1190	1195	1200
Pro Lys Ser Gly Ala Pro Thr Lys Pro Thr Ala Pro Lys Pro Ala Ala			
1205	1210	1215	
Pro Lys Pro Thr Ala Pro Lys Glu			
1220			